STATUS OF THE CLAIMS

1. (Presently amended) A method for synthesizing carbon nanostructures, the method comprising:

providing a catalyst of metal nanoparticles, wherein the catalyst is supported on a powdered oxide substrate having a particle size of 0.5 μm to 5 μm;

entraining the catalyst in an inert gas; and

exposing the entrained catalyst to a carbon precursor gas at a temperature sufficient to form carbon nanostructures, wherein the carbon nanostructure is single-walled carbon nanotubes.

2. (Original) The method of claim 1, wherein the catalyst is a metal selected from the group consisting of iron, nickel, molybdenum and cobalt, or mixtures thereof.

3. (Original) The method of claim 2, wherein the metal is iron.

4. (Original) The method of claim 2, wherein the metal is molybdenum.

5. (Original) The method of claim 1, wherein the catalyst has a particle size between 3 nm to 7nm or about 5 nm to 10 nm.

6. (Cancel).

7. (Original) The method of claim 6, wherein the powdered oxide substrate is selected from the group consisting of Al_2O_3, SiO_3, MgO and zeolites.

8. (Original) The method of claim 7, wherein the powdered oxide substrate is Al_2O_3.

9. (Cancel).

10. (Original) The method of claim 1, wherein the inert gas is selected from the group consisting of argon, helium, nitrogen, or hydrogen.

11. (Original) The method of claim 10, wherein the inert gas is argon.

12. (Original) The method of claim 1, wherein the carbon precursor gas is selected from the group consisting of methane, ethane, propane, ethylene, propylene, and carbon dioxide.

13. (Original) The method of claim 12, wherein the carbon precursor gas is methane.

14. (Original) The method of claim 1, further comprising another gas.

15. (Original) The method of claim 14, wherein the other gas is selected from the group consisting of hydrogen, helium, argon, neon, krypton and xenon or a mixture thereof.

16. (Original) The method of claim 15, wherein the other gas is a mixture of hydrogen and argon.

17. (Original) The method of claim 1, wherein the temperature is less than 1000 °C.

18. (Original) The method of claim 17, wherein the temperature is about 800 °C to 1000 °C.

19-37. (Cancel)

38. (Presently amended) A carbon nanotube structure produced by the process of :

entraining a catalyst in an inert gas, wherein the catalyst is a metal supported on a powdered oxide substrate, wherein the metal is selected from the group consisting of iron, nickel, molybdenum and cobalt, or mixtures thereof, and the powdered oxide substrate selected from the group consisting of Al_2O_3, SiO_3, MgO and zeolites;

exposing the entrained catalyst to a precursor gas at a temperature sufficient to form carbon nanotube structure; and

collecting the synthesized carbon nanostructures, wherein the carbon nanostructure is single-walled carbon nanotubes.

39. (Original) The process of claim 38, wherein the metal is iron.

40. (Original) The process of claim 38, wherein the metal is molybdenum.

41. (Original) The process of claim 38, wherein the powdered oxide substrate is Al_2O_3.

42. (Original) The process of claim 38, wherein the powdered oxide substrate has a particle size of 0.5 μm to 5 μm, and the metal has a particle size between 3 nm to 10 nm.

43. (Original) The process of claim 38, wherein the inert gas is selected from the group consisting of argon, helium, nitrogen, or hydrogen.

44. (Original) The process of claim 43, wherein the inert gas is argon.

45. (Original) The process of claim 38, wherein the reactant gas is selected from the group consisting of methane, ethane, propane, ethylene, propylene, and carbon dioxide.

46. (Original) The process of claim 45, wherein the reactant gas is methane.

47. (Original) The process of claim 45, further comprising another gas selected from the group consisting of hydrogen, helium, argon, neon, krypton and xenon or a mixture thereof.

48. (Original) The process of claim 47, wherein the other gas is a mixture of hydrogen and argon.

49. (Original) The process of claim 38, wherein the temperature is less than 1000 °C.

50. (Cancel).